



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

MAPV

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/020,928 | 12/19/2001 | Shigeo Kouzuki | 217636US3 | 9844 |
| 22850 | 7590 | 03/03/2005 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | GRAYBILL, DAVID E | |
| | | ART UNIT | PAPER NUMBER | |
| | | 2822 | | |

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------|----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/020,928 | KOUZUKI ET AL. |
| | Examiner | Art Unit |
| | David E. Graybill | 2822 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 January 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1 page.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art and Dudderar (6297551).

At page 1, line 7 to page 5, line 7; page 6, lines 32-34; page 7, lines 2-24; page 7, line 32 to page 8, line 5; page 8, line 24 to page 9, line 2; page 10, lines 20-22; page 10, line 31 to page 12, line 3, applicant admits as prior art all of the limitations of the claims except for the following.

Applicant does not appear to admit as prior art a metal plating layer being formed of a second copper metal and capable of being soldered onto the extraction electrode, and the extraction electrode connects the lead terminal to the first electrode layer via the metal plating layer.

Nonetheless, at column 5, lines 4-47, Dudderar discloses a metal plating layer "coating" being formed of a second copper metal and capable of being soldered onto a copper electrode. Moreover, it would have been obvious to combine this product of Dudderar with the product of the admitted prior art because it would enable soldering of the admitted prior art aluminum first electrode layer 97 to the copper extraction electrode 55.

Also, although applicant does not appear to explicitly admit as prior art the process limitations, "selectively formed," "wherein said metal plating layer is selectively formed on said first electrode layer by self-alignment using said protective film as a mask," and, "wherein said metal plating layer is formed by a wet electroless plating," the product of the admitted prior art inherently possesses any structural characteristics imparted by the process limitation. See *In re Fitzgerald, Sanders, and Bagheri*, 205 USPQ 594 (CCPA 1980).

Applicant's amendment and remarks filed 8-11-4 have been fully considered, are addressed by the rejections supra, and are further addressed infra.

Applicant argues, "in Dudderar the noted metal plating is not even formed on an electrode. Moreover, Dudderar clearly discloses the noted metal plating layer is formed on the entire surface of the MCI tile that is exposed, and thus Dudderar does not disclose or suggest a 'metal plating layer which is **selectively** formed on said first electrode layer'." In addition, applicant argues that Dudderar does not disclose that the metal plating layer is formed by wet electroless plating.

These arguments are respectfully deemed unpersuasive because Dudderar is not necessarily relied on in the rejection for a disclosure that the plating is formed on an electrode, or for a metal plating layer which is selectively formed on the first electrode layer, or for a disclosure that the metal plating layer is formed by wet electroless plating.

Applicant also contends, "'said metal plating layer is formed by a wet electroless plating'. Such a further feature provides an advantageous effect that a metal plating process can be carried out in a wafer state, by utilizing the wet electroless plating process.

This contention is respectfully traversed because the claimed wet electroless plating is a process limitation, and product by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Therefore, the claims do not enjoy the alleged advantage of the manipulations of the wet electroless plating process.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

For information on the status of this application applicant should check PAIR: Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alternatively, applicant may contact the File Information Unit at (703) 308-2733. Telephone status inquiries should not be directed to the examiner. See MPEP 1730VIC, MPEP 203.08 and MPEP 102.

Any other telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m. The fax phone number for group 2800 is (703) 872-9306.

Application/Control Number: 10/020,928

Page 6

Art Unit: 2822



David E. Graybill
Primary Examiner
Art Unit 2827

D.G.

17-Feb-05